Title 33
ENVIRONMENTAL QUALITY
Part IX. Water Quality

Subpart 1. Water Pollution Control

Chapter 11. Surface Water Quality Standards

§1101. Introduction

A. The purpose of this Chapter is to establish surface water quality standards that~~which~~ will:

1. — 2. …

3. protect or enhance the quality of state~~public~~ waters for designated uses; and

4. — B.2. …

3. criteria that protect the designated uses by~~which~~ specifying general and numerical limitations for various water quality parameters ~~that are required for designated water uses~~.

C. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2074(B)(1).
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 10:745 (October 1984), amended LR 15:738 (September 1989), LR 20:883 (August 1994), amended by the Office of the Secretary, Legal Affairs Division, LR 33:826 (May 2007), amended by the Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 46:

§1105. Definitions

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Brackish Marshes—those areas inundated or saturated by surface water or groundwater of moderate salinity at a frequency and duration sufficient to support, and that under normal circumstances do support, brackish emergent vegetation. Typical vegetation includes bulltongue (*Sagittaria* spp.), wild millet (*Echinochloa walteri*), bullwhip (*Scirpus californ~~m~~icus*), sawgrass

(*Cladium jamaicense*), wiregrass *(Spartina patens)*, three-cornered grass *(Scirpus olneyi)*, and widgeongrass *(Ruppia maritima)*. *Brackish marshes* are also characterized by interstitial water salinity that normally ranges between 3 and 15 parts per thousand ~~(ppt) or practical salinity units (psu)~~.

* * *

Cypress-Tupelo Swamps—those areas inundated or saturated by surface water or groundwater of negligible to very low salinity at a frequency and duration sufficient to support, and that under normal circumstances do support, cypress-tupelo vegetation. Typical vegetation includes water tupelo (*Nyssa ~~S~~sylvatica* var. *aquatica*), bald cypress (*Taxodium distichum*), red maple (*Acer rubrum*), buttonbush (*Cephalanthus occidentalis*), and common wax myrtle (*Myrica cerifera*). *Cypress-tupelo swamps* can tolerate continuously flooded conditions and are divided into two subtypes: continuously flooded and seasonally flooded. Continuously flooded swamps are those areas that have standing water present all year round. They range from forests with a closed canopy to open canopy conditions with understory freshwater emergent wetland vegetation. Seasonally flooded swamps are those areas that are typically flooded for more than six months per year. They typically have a closed canopy that limits understory vegetation.

* * *

Effluent Limitation—any applicable state or federal qualitative~~y~~ or quantitative~~y~~ limitation that imposes any restriction or prohibition on quantities, discharge rates, and concentrations of pollutants discharged into the waters of the state.

* * *

Fresh Warmwater Biota—aquatic life species whose populations typically inhabit waters with warm temperatures (seasonal averages above 20ºC, 68ºF) and low salinities (less than 2 parts

per thousand), including, but not limited to, black basses; and freshwater sunfish; and freshwater catfish; and characteristic freshwater aquatic invertebrates and wildlife.

* * *

Freshwater Emergent Wetlands (including *freshwater marshes*)—those areas inundated or saturated by surface water or groundwater of negligible to very low salinity at a frequency and duration sufficient to support, and that under normal circumstances do support, freshwater emergent vegetation. Typical vegetation includes cattail (*Typha angustifolia*), bulltongue (*Sagittaria* spp.), maiden cane (*Panicum hemitomon*), water hyacinth (*Eichhornia crassipes*), pickerelweed (*Pontederia cordata*), alligator weed (*Alternanthera philoxeroides*), and pennywort (*Hydrocotyle* spp.). *Freshwater emergent wetlands* also are characterized by interstitial water salinity that is normally less than 2 parts per thousand or psu. There are two subtypes of *freshwater emergent wetlands*: floating and attached. Floating wetlands are those areas where the wetland surface substrate is detached and is floating above the underlying deltaic plain (also called "buoyant" and "flotant"). Attached wetlands are those areas where the vegetation is attached to the wetland surface and is contiguous with the underlying wetland substrate and can be submerged or emergent.

* * *

Highest Attainable Use—the modified aquatic life, wildlife, or recreation use that is both closest to the uses specified in section 101(a)(2) of the Clean Water Act and attainable, based on the evaluation of the factor(s) in LAC 33:IX.1109.B.3 that preclude(s) attainment of the use and any other information or analyses that were used to evaluate attainability. There is no required highest attainable use where the state demonstrates the relevant use specified in section 101(a)(2) of the Clean Water Act and subcategories of such a use are not attainable.

* * *

LC50—the numerical limit or concentration of a test material that is lethal to 50 percent of the exposed aquatic organisms within a specified period of time.

* * *

Non-101(a)(2) Use—any use unrelated to the protection and propagation of fish, shellfish, wildlife or recreation in or on the water.

* * *

Pollutant Minimization Program—a structured set of activities to improve processes and pollutant controls that prevent and reduce pollutant loadings in the context of LAC 33:IX.1109.E.

Commented [JP1]: This one was moved up to be in correct alphabetical order and legal changed the citation from the CFR to the LAC.

* * *

Practicable—technologically possible, economically viable, and able to be put into practice, in the context of LAC 33:IX.1109.A.2.b.

Commented [JP2]: Legal rearranged the phrasing. As I recall, they don't like using the word "means" in definitions.

* * *

Salt (*Saline*) *Marshes*—those areas that are inundated or saturated by surface water or groundwater of salinity characteristic of nearshore Gulf of Mexico ambient water at a frequency and duration sufficient to support, and that under normal circumstances do support, saline emergent vegetation. Typical vegetation includes oystergrass (*Spartina alterniflora*), glasswort (*Salicomia* spp.), black rush (*Juncus roemerianus*), saltwort (*Batis maritima*), black mangrove (*Avicennia germinans*), and salt-grass (*Distichlis spicata*). *Salt marshes* are also characterized by interstitial water salinity that normally exceeds 16 parts per thousand ~~or psu~~.

* * *

Water Quality Standard—an established set of provisions consisting of antidegradation requirements (policy and/or proceedures), designated uses, and water quality criteria (narrative or

numeric) to protect the designated uses and general policies included at the state's discretion, in order to meet the objectives in section 101(a) of the Clean Water Act~~a definite numerical criterion value or general criterion statement or policy statement promulgated by the administrative authority to enhance or maintain water quality and to provide for, and fully protect, the designated uses of the waters of the state~~.

Water Quality Standards Variance (WQS Variance)—a time-limited designated use and criterion for a specific pollutant(s) or water quality parameter(s) that reflect the highest attainable condition during the term of the *water quality standards variance.*

Waters of the State (or State Waters)—all surface and underground waters and watercourses within the state of Louisiana, whether natural or man-made, including but not limited to, all rivers, streams, lakes, wetlands, and groundwaters, within the confines of the state, and all bordering waters extending three miles into ~~of~~ the Gulf of Mexico.

Commented [JP3]: This phrasing was rearranged.

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AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2074(B)(1).
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§1107. Enforcement

A. …

B. Since aquatic systems receive organic and inorganic materials from natural and man-made sources and receive physical inputs from natural and man-made sources, due

allowances will be made for situations where low dissolved oxygen concentrations or other water quality conditions attributable to natural sources are at variance with the standards. To allow for such situations, the numeric~~al~~ criteria will not be applied below the 7Q10 or other appropriate critical flow as defined in LAC 33:IX.1115.C.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2074(B)(1).
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 10:745 (October 1984), amended LR 15:738 (September 1989), LR 20:883 (August 1994), amended by the Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 46:

§1109. Policy

Water quality standards policies concerned with the protection and enhancement of water quality in the state are discussed in this Section. Policy statements on antidegradation, water use, water body exception classification~~categories~~, compliance schedules, ~~and~~ variances, short-term activity authorization, errors, severability, revisions to standards, and sample collection and analytical procedures are described.

A. Antidegradation Policy

1. The existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

2~~1~~. Where the water quality exceeds levels necessary to support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water, that water quality shall be maintained and protected unless the state finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the state's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. The state shall assure water quality adequate to fully protect existing uses with such degradation or lower water quality.

The state shall assure the highest statutory and regulatory requirements shall be achieved for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.~~State policy is that all waters of the state, including interstate, intrastate, and coastal waters, and any portions thereof, whose existing quality exceeds the specifications of the approved water quality standards or otherwise supports an unusual abundance and diversity of fish and wildlife resources, such as waters of national and state parks and refuges, will be maintained at their existing high quality. After completion of appropriate analysis and after completion of the public participation processes outlined in the Water Quality Management Plan and the Continuing Planning Process, the state may choose to allow lower water quality in waters that exceed the standards to accommodate justifiable economic and/or social development in the areas in which the waters are located, but not to the extent of violating the established water quality standards. No such changes, however, will be allowed if they impair the existing water uses. No lowering of water quality will be allowed in waters where designated water uses are not currently being attained.~~

a. Waters may be identified for the protections described in Paragraph 2 of this Subsection on a parameter-by-parameter basis or on a water body-by-water body basis. Where the state identifies waters for antidegradation protection on a water body-by-water body basis, the state shall provide an opportunity for public involvement in any decisions about whether the protections described in Paragraph 2 of this Subsection will be given to a water body, and the factors considered when making those decisions. A water body shall not be excluded from the protections described in Paragraph 2 of this Subsection solely because water quality does not exceed levels necessary to support all of the uses specified in section 101(a)(2) of the Clean Water Act.

Commented [JP4]: Rephrased.

Commented [JP5]: Rephrased; legal doesn't like using "further".

b. Before allowing any lowering of high water quality, according to Paragraph 2 of this Subsection, the state shall find, after an analysis of alternatives, that such a lowering is necessary to accommodate important economic or social development in the area in which the waters are located. The analysis of alternatives shall evaluate a range of practicable alternatives that would prevent or lessen the degradation associated with the proposed activity. When the analysis of alternatives identifies one or more practicable alternatives, the state shall only find that a lowering is necessary if one such alternative is selected for implementation.

32. Waste discharges shall comply with applicable state and federal laws for the attainment of water quality goals. Any new, existing, or expanded point source or nonpoint source discharging into state waters, including any land clearing which is the subject of a federal permit application, shall be required to provide the necessary level of waste treatment to protect state waters as determined by the administrative authority. Further, the highest statutory and regulatory requirements shall be achieved for all existing point sources and best management practices (BMPs) for nonpoint sources. Additionally, no degradation shall be allowed in high-quality waters designated as *outstanding natural resource waters*, as defined in LAC 33:IX.1111.A. Waters included in the Louisiana Natural and Scenic Rivers System, under the administration of the Louisiana Department of Wildlife and Fisheries, will be considered by the department for designation as outstanding natural resource waters. Those water bodies presently designated as outstanding natural resource waters are listed in LAC 33:IX.1123. The administrative authority shall not approve any wastewater discharge or certify any activity for federal permit that would impair water quality or use of state waters, including waters in the Natural and Scenic Rivers System that are waters of the state.

4. The antidegradation policy and implementation method shall be consistent with section 316 of the Clean Water Act where a potential water quality impairment is associated with a thermal discharge.

5~~3~~. An implementation plan for this antidegradation policy is provided in LAC 33:IX.1119. The state's methods for implementing the antidegradation policy shall be, at a minimum, consistent with the state's policy and with the federal regulations at 40 CFR 131.12(a). The state shall provide an opportunity for public involvement during the development and any subsequent revisions of the implementation methods.

B. — B.3.f. …

4. The department shall ensure that the water quality standards provide for the attainment and maintenance of the water quality standards of the downstream waters when designating water body uses and the appropriate criteria for those uses.

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5. A subcategory of a use may be adopted and the appropriate criteria set to reflect the varying needs of such a subcategory of a use.

C. Water Body Exception Classification. Some water bodies may qualify for a water body exception classification. This classification will be made on a case-by-case basis. Whenever data indicate that a water body exception classification is warranted, the department will recommend the exception to the administrative authority for approval. In all cases where exceptions are proposed, the concurrence of ~~the Water Quality Protection Division Director of the~~ EPA must be obtained and the opportunity for public participation must be provided during the exceptions review process. The general criteria of these standards shall apply to all water bodies classified as a water body exception except where a particular water body is specifically exempted. A use attainability analysis ~~may~~shall be conducted ~~to gather data necessary~~ to justify a water body

exception classification if an accompanying downgrade of a 101(a)(2) use or revision of criteria is being proposed. ~~If such a classification is justified, applicable water uses and water quality criteria will be established.~~ Exceptions are allowed for the following three classifications~~categories~~ of water bodies.

1. — 2.d. …

3. Naturally Dystrophic Waters~~. *Naturally dystrophic waters* are defined in LAC 33:IX.1105. Water bodies shall be designated as *naturally dystrophic waters* and assigned appropriate water quality criteria according to the procedure in the department's current Water Quality Management Plan/Continuing Planning Process.~~

a. Naturally dystrophic waters are defined as waters that receive large amounts of natural organic material largely of terrestrial plant origin, are commonly stained by the decomposition of such organic material, and are low in dissolved oxygen because of natural conditions. Only those water bodies primarily affected by nonanthropogenic sources of oxygen-demanding substances or naturally occurring cycles of oxygen depletion will be considered for classification as naturally dystrophic waters. These water bodies typically include or are surrounded by wetlands (e.g., bottomland hardwood forests, freshwater swamps and marshes, or intermediate, brackish, or saline marshes) and have sluggish, low-gradient flows most of the year. Naturally dystrophic water bodies, though seasonally deficient in dissolved oxygen, may fully support fish and wildlife propagation and other water uses. Low dissolved oxygen concentrations (less than 5 mg/l) may occur seasonally during the warmer months of the year in naturally dystrophic water bodies.

b. No water body may be classified as naturally dystrophic without the approval of both the administrative authority and the EPA. A use attainability analysis may be

conducted to gather data to document the characteristics of a naturally dystrophic water body. A use attainability analysis must be conducted to support the modification of dissolved oxygen criteria and/or the seasonality of dissolved oxygen criteria in naturally dystrophic waters. Applicable general and numeric criteria not specifically exempt shall remain applicable to waters classified as naturally dystrophic.

c. A wastewater discharge to an approved naturally dystrophic water body may be proposed only if the discharge will not by itself or in conjunction with other discharges, cause impairment of the applicable designated uses, nor cause exceedance of any applicable general and site-specific criteria in the receiving water body, as determined in the exception approval process, nor cause exceedance of any applicable general and site-specific criteria in LAC 33:IX.1113 and 1123 in any water body that receives water from the naturally dystrophic water body.

d. Natural background conditions and proposed significant changes will be determined through use attainability analyses prior to the addition of any discharge. A wastewater discharge may be proposed for an approved, designated naturally dystrophic water body in a wetland only if the discharge will not by itself, or in conjunction with other discharges:

Commented [JP7]: The section was rephrased and reworked.

i. cause inundation of the receiving area such that regeneration of characteristic vegetative species would be significantly reduced;

ii. significantly modify species composition of the receiving area; and

iii. increase biological succession of the receiving area above naturally occurring levels.

D. Compliance Schedules in LPDES Permits. ~~and Variances~~

~~1.~~ Upon permit issuance, modification, or renewal, compliance schedules may be incorporated into a permit to allow a permittee adequate time to make treatment facility modifications necessary to comply with water quality-based permit limitations determined to be necessary to implement new or revised water quality standards. Compliance shall be achieved at the earliest practicable time. The department will establish interim conditions which may consist of, but are not limited to, compliance schedules, monitoring requirements, temporary limits, and milestone dates so as to measure progress toward final project completion (e.g., design completion, construction start, construction completion, date of compliance).

~~2. A variance from statewide criteria may be allowed in certain cases where the appropriateness of the criteria is questionable. The variance provides a period of time during which issues concerning the appropriateness of the criteria may be resolved. A variance shall be valid for no more than three years. Any person may request that the department grant a variance. A variance may be granted only after appropriate public participation and EPA review and approval. Variances from criteria will be allowed for anticipated nonattainment of water quality standards due to one or more of the reasons listed in LAC 33:IX.1109.B.3. Other reasons for approval of a variance may be considered on a case-by-case basis.~~

E. Water Quality Standards (WQS) Variances

Commented [JP8]: This whole section is renumbered

1. The state may adopt a *WQS variance*, as defined in Section 1105 of this Chapter. The WQS variance is subject to the provisions of this Subsection and public participation requirements at 40 CFR 131.20(b). A WQS variance shall comply with the requirements of 40 CFR 131.14 and is a water quality standard subject to EPA review and approval, or disapproval under section 303(c) of the Clean Water Act.

a. Applicability

i. A WQS variance may be adopted for a permittee(s) or water body/water body segment(s), but only applies to the permittee(s) or water body/water body segment(s) specified in the WQS variance.

ii. When adopting a WQS variance the underlying designated use and criterion addressed by the WQS variance shall be retained, unless a revision to the underlying designated use and criterion is adopted by the department and approved by EPA consistent with federal regulations. All other applicable standards not specifically addressed by the WQS variance remain applicable.

iii. Once the WQS variance is adopted by the state and approved by EPA, it shall be the applicable standard for purposes of the Clean Water Act under 40 CFR 131.21(d)–(e), for the following limited purposes. The approved WQS variance applies for the purposes of developing LPDES permit limits and requirements under federal regulations, where appropriate, consistent with Clause E.1.d.i of this Subsection.

Commented [JP9]: The last sentence concerning WQS variances with 401 WQC's was deleted.

iv. A WQS variance will not be adopted if the designated use and criterion addressed by the WQS variance can be achieved by implementing technology-based effluent limits required under sections 301(b) and 306 of the Clean Water Act.

b. Requirements for Submission to EPA. The following information shall be included in the WQS variance submitted to EPA when granting a variance request for a permittee(s), or water body/water body segment(s).

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i. Identify the pollutant(s) or water quality parameter(s) and the water body/water body segment(s) to which the WQS variance applies. A discharger(s)-specific WQS variance shall also identify the permittee(s) subject to the WQS variance.

ii. Provide the requirements that apply throughout the term of the WQS variance. The requirements shall represent the highest attainable condition of the water body or water body segment applicable throughout the term of the WQS variance based on the required supporting documentation. The requirements shall not result in any lowering of the currently attained ambient water quality, unless a WQS variance is necessary for restoration activities, consistent with LAC 33:IX.1109.E.1.c.i.(a).(ii). The state shall specify the highest attainable condition of the water body or water body segment as a quantifiable expression that is one of the following:

(a). for a discharger(s)-specific WQS variance:

(i). the highest attainable interim criterion;

(ii). the interim effluent condition that reflects the greatest pollutant reduction achievable; or

(iii). if no additional feasible pollutant control technology can be identified, the interim criterion or interim effluent condition that reflects the greatest pollutant reduction achievable with the pollutant control technologies installed at the time the state adopts the WQS variance, and the adoption and implementation of a pollutant minimization program, as defined in Section 1105 of this Chapter;

(b). for a WQS variance applicable to a water body or water body segment:

(i). the highest attainable interim use and interim criterion; or

(ii). if no additional feasible pollutant control technology can be identified, the interim use and interim criterion that reflect the greatest pollutant

Commented [JP11]: Rephrased

Commented [JP12]: Citation changed from renumbering.

reduction achievable with the pollutant control technologies installed at the time the state adopts the WQS variance, and the adoption and implementation of a pollutant minimization program.

iii. Provide a statement that the requirements of the WQS variance are either the highest attainable condition identified at the time of the adoption of the WQS variance, or the highest attainable condition later identified during any reevaluation consistent with Clause E.1.b.v of this Subsection, whichever is more stringent.

iv. State the term of the WQS variance, expressed as an interval of time from the date of EPA approval or a specific date. The term of the WQS variance shall only be as long as necessary to achieve the highest attainable condition and consistent with the demonstration provided in Subparagraph E.1.c of this Subsection. The state may adopt a subsequent WQS variance consistent with this Subsection.

v. For a WQS variance with a term greater than five years, specify a frequency to reevaluate the highest attainable condition using all existing and readily available information and stipulate a provision how the state intends to obtain public input on the reevaluation. Such reevaluations shall occur no less frequently than every five years after EPA approval of the WQS variance and the results of such reevaluation shall be submitted to EPA within 30 days of completion of the reevaluation.

vi. A provision of the WQS variance shall stipulate the WQS variance will no longer be the applicable water quality standard for purposes of the Clean Water Act if the state does not conduct a reevaluation consistent with the frequency specified in the WQS variance or the results are not submitted to EPA as required by Clause E.1.b.v of this Subsection until the state conducts the reevaluation and submits the results to EPA.

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Commented [JP14]: Citation changed from renumbering.

Commented [JP15]: Citation changed from renumbering.

c. The supporting documentation submitted to EPA shall include the following.

i. Documentation that shall demonstrate the need for a WQS variance.

(a). For a WQS variance to a Clean Water Act section 101(a)(2) use or a subcategory of such a use, the state shall demonstrate that attaining the designated use and criterion is not feasible throughout the term of the WQS variance because:

(i). one of the factors listed in Clause B.3 of this Section is met; or

(ii). actions necessary to facilitate lake, wetland, or stream restoration through dam removal or other significant reconfiguration activities preclude attainment of the designated use and criterion while the actions are being implemented.

(b). For a WQS variance to a non-Clean Water Act section 101(a)(2) use, the state shall submit documentation justifying how its consideration of the use and value of the water for those uses listed in 40 CFR 131.10(a) appropriately supports the WQS variance and term. A demonstration consistent with Subclause E.1.c.i.(a) of this Subsection may be used to satisfy this requirement.

ii. Documentation that shall demonstrate that the term of the WQS variance is only as long as necessary to achieve the highest attainable condition. Such documentation shall justify the term of the WQS variance by describing the pollutant control activities to achieve the highest attainable condition, including those activities identified through a pollutant minimization program, which serve as milestones for the WQS variance.

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Commented [JP17]: Citation changed from renumbering.

iii. In addition to Clause E.1.c.i and ii of this Subsection, for a WQS variance that applies to a water body or water body segment:

(a). Identify and document any cost-effective and reasonable best management practices for nonpoint source controls related to the pollutant(s) or water quality parameter(s) and water body or water body segment(s) specified in the WQS variance that could be implemented to make progress towards attaining the underlying designated use and criterion (The state shall provide public notice and comment for any such documentation).

(b). Any subsequent WQS variance for a water body or water body segment shall include documentation of whether and to what extent best management practices for nonpoint source controls were implemented to address the pollutant(s) or water quality parameter(s) subject to the WQS variance and the water quality progress achieved.

d. Implementation of a WQS variance in an LPDES permit. A WQS variance serves as the applicable water quality standard for implementation of LPDES permitting requirements pursuant to LAC 33:IX.2707.D for the term of the WQS variance. Any limitations and requirements necessary to implement the WQS variance shall be included as enforceable conditions of the LPDES permit for the permittee(s) subject to the WQS variance.

F~~E~~. Short-Term Activity Authorization. The administrative authority may exempt from water quality standards certain short-term activities that the state determines are necessary to accommodate activities, emergencies, or to protect the public health and welfare. Such activities shall not cause long-term or permanent impact on designated water uses. These activities may include, but are not limited to, mosquito abatement projects, algae and weed control projects, and fish eradication projects. No short-term activity authorization shall supersede any applicable state or federal law or regulation including permitting process or the terms or conditions of any permit.

Commented [JP18]: Citation changed from renumbering.

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GF. Errors. Errors resulting from inadequate or erroneous data and human or clerical errors will be subject to correction by the state, and the discovery of such errors does not render the remaining or unaffected standards invalid.

HG. Severability. If any provisions of these standards or the application of any provision of these standards to any person or circumstance is held invalid, the application of such provision to other persons or circumstances and the remainder of the standards shall not be affected thereby.

IH. Water Quality Standards Revision Process

1. It is the position of the state of Louisiana that the standards contained herein are those that are reasonable on the basis of the actual or potential quality of the state's waters, present and future water uses, and the best practicable wastewater treatment under any conditions. However, standards are not fixed for all time, but are subject to future revision. The nature of future revisions of these standards will be strongly influenced by many factors. Among these are the following.

a. As a downstream or bordering state in all cases involving interstate streams, Louisiana's standards will be affected by the quality of water received from its upstream and neighboring states.

b. Because it is the state farthest downstream, Louisiana's water quality will be affected by mean low flows when interstate rivers and tributaries become subject to flow regulation and diversion projects.

Commented [JP20]: No changes to this section. I'm unsure why legal put it in.

c. Changes in technology or natural conditions, or the availability of new data, may require a revision of numerical criteria at any time. Such revisions, however, will be accomplished only after proper consideration of designated water uses. Any proposed revision will be consistent with state and federal regulations.

d. Advances in scientific knowledge concerning the toxicity, cancer potency, metabolism, or exposure pathways of toxic pollutants that affect the assumptions on which existing criteria are based may necessitate a revision of numeric~~al~~ criteria at any time. Such revisions, however, will be accomplished only after proper consideration of designated water uses. Any proposed revision will be consistent with state and federal regulations.

2. The state shall hold public hearings at least once every three years to review applicable water quality standards and, as appropriate, modify and adopt standards. The revised standards will be reviewed in accordance with the state Administrative Procedure Act (R.S. 49:950 et seq.) and appropriate EPA procedures.

Commented [JP21]: Also, no changes to this section. Legal put it in.

I~~H~~. Sample Collection and Analytical Procedures. Procedures for collecting and analyzing samples to be used to determine whether the standards have been attained shall be subject to the following requirements as well as those specified in the department's Quality Assurance (QA) Plan for water monitoring and analysis.

1. Samples will be obtained at a depth or depths representative of the average water quality at the sampling station in question.

2. Samples will be collected from sampling locations as necessary to assess attainment of standards.

3. Collection and preservation of samples will be in accordance with accepted practices as specified in the department's QA Plan.

4. Numeric~~al~~ values of the various parameters will typically be determined by analytical procedures as specified in the QA Plan.

Commented [JP22]: Also, no changes to this section. Legal put it in.

K~~J~~. Wetlands

1. Wetlands, as defined in LAC 33:IX.1105, are a valuable resource to the state of Louisiana. Because of the state's natural low elevations, extensive riverine and riparian environments, and the presence of the Mississippi River delta, Louisiana has a large and diverse amount of wetland habitat. Specific values of Louisiana wetlands include commercial, recreational, and cultural uses. In addition, Louisiana wetlands provide important biological and physiochemical functions that include, but are not limited to, buffering against hurricanes and storms, holding excess floodwaters during high rainfall or high tides, recharging groundwater aquifers used for drinking water and irrigation, and improving water quality by filtering pollutants and taking up nutrients.

2. There are two basic types of Louisiana wetlands: forested wetlands and non-forested, or marsh, wetlands. Forested wetlands include bottomland hardwood swamps, continuously flooded cypress-tupelo swamps, seasonally flooded cypress-tupelo swamps, and oligotrophic seasonally flooded pine forests. Non-forested or marsh wetlands include floating freshwater emergent wetlands, attached freshwater emergent wetlands, brackish marshes, and salt (saline) marshes. Each of these wetland types are defined in LAC 33:IX.1105.

3. Wetlands approved by the administrative authority for wastewater assimilation projects pursuant to the Water Quality Management Plan, Volume 3, Section 10, Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, are assigned the following designated uses: secondary contact recreation and fish and wildlife propagation.

4. Applicable Criteria. Wetlands provide several values and functions that necessitate water quality criteria protective primarily of vegetative productivity. Additionally, wetlands can periodically become anoxic or anaerobic, or lack water altogether. Therefore, the

following criteria are applicable to wetlands approved by the administrative authority for wastewater assimilation projects pursuant to the Water Quality Management Plan, Volume 3, Section 10, Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards.

a. A numeric~~al~~ dissolved oxygen criterion is not necessary to protect the beneficial use of fish and wildlife propagation.

b. The general criteria found in LAC 33:IX.1113.B, except for LAC 33:IX.1113.B.3 and 9, apply.

c. Numeric~~al~~ criteria found in LAC 33:IX.1113.C.4, 5.b, and 6 apply.

d. The biological criteria found in LAC 33:IX.1113.B.12.b apply.

e. Additional or site-specific criteria may be necessary to protect other existing or beneficial uses identified by the administrative authority.

5. A wastewater discharge may be proposed for a wetland of any defined type only if the discharge will not cause impairment of the wetland or exceedance of applicable general or site-specific criteria.

6. Discharges to wetlands approved by the administrative authority for wastewater assimilation projects will only be permitted following procedures pursuant to the Water Quality Management Plan, Volume 3, Section 10, Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2074(B)(1).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 10:745 (October 1984), amended LR 15:738 (September 1989), LR 17:264 (March 1991), LR 17:966 (October 1991), LR 20:883 (August 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2546 (November 2000), LR 29:557 (April 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 33:457 (March 2007), LR 33:828 (May 2007), amended by the Office of the Secretary, Legal

Commented [JP23]: Also, no changes to this section. Legal put it in.

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Division, LR 40:2243 (November 2014), amended by the Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 46:

§1113. Criteria

A. Introduction

1. Water quality ~~C~~criteria are elements of the water quality standards that~~which~~ set general and numeric~~al~~ limitations on the permissible amounts of a substance or other characteristics of state waters. General and numeric~~al~~ criteria are established to promote restoration, maintenance, and protection of state waters. ~~Water quality criteria describe stream uses.~~ A criterion for a substance represents the limits~~permissible levels~~ for that substance at which water quality will remain sufficient to support a designated use.

2. Water q~~Q~~uality criteria for the waters of Louisiana are based on their present and potential uses and the existing water quality indicated by data accumulated through monitoring programs of the department and other state and federal agencies as well as universities and private sources. In some cases, available water quality and flow data are not adequate to establish criteria. Criteria in these cases are established on the basis of the best information available from water bodies that~~which~~ are similar in hydrology, water quality, and physical configuration.

3. General and numeric~~al~~ water quality criteria may be modified to take into account site-specific, local conditions. Whenever data acquired from the sources named in LAC 33:IX.1113.A.2 or other sources indicate that criteria should be modified, the department will develop and recommend revised site-specific criteria. The revised criteria will be submitted to the EPA for approval and promulgated in accordance with established procedures including, but not limited to, those in the Louisiana Administrative Procedure Act, R.S. 49:950 et seq.

B. — B.4. …

5. Toxic Substances. No substances shall be present in the waters of the state

or the sediments underlying said waters in quantities that alone or in combination will be toxic to human, plant, or animal life or significantly increase health risks due to exposure to the substances or consumption of contaminated fish or other aquatic life. The numeric~~al~~ criteria (LAC 33:IX.1113.C.6) specify allowable concentrations in water for several individual toxic substances to provide protection from the toxic effects of these substances. Requirements for the protection from the toxic effects of other toxic substances not included in the numeric~~al~~ criteria and required under the general criteria are described in LAC 33:IX.1121.

6. — 13. …

C. Numeric~~al~~ Criteria. Numeric~~al~~ criteria identified in LAC 33:IX.1123, Table 3, apply to the specified water bodies, and to their tributaries, distributaries, and interconnected streams and water bodies contained in the water management subsegment if they are not specifically named therein, unless unique chemical, physical, and/or biological conditions preclude the attainment of the criteria. In those cases, natural background levels of these conditions may be used to establish site-specific water quality criteria. Those water bodies officially approved and designated by the state and EPA as intermittent streams, man-made water bodies, or naturally dystrophic waters may be excluded from some or all numeric~~al~~ criteria as stated in LAC 33:IX.1109. Although naturally occurring variations in water quality may exceed criteria, water quality conditions attributed to human activities must not exceed criteria when flows are greater than or at critical conditions (as defined in LAC 33:IX.1115.C).

1. …

2. Chlorides, Sulfates, and Total Dissolved Solids. Numeric~~al~~ criteria for these parameters generally represent the arithmetic mean of existing data from the nearest sampling location plus three standard deviations. For estuarine and coastal marine waters subsegments in

Table 3 that have no listed criteria (i.e., designated N/A), criteria will be established on a case-by-case basis using field determination of ambient conditions and the designated uses. For water bodies not specifically listed in the Numeric~~al~~ Criteria and Designated Uses Table, increases over background levels of chlorides, sulfates, and total dissolved solids may be permitted. Such increases will be permitted at the discretion of the department on a case-by-case basis and shall not cause in-stream concentrations to exceed 250, 250, and 500 mg/L for chlorides, sulfates, and total dissolved solids, respectively, except where a use attainability analysis indicates that higher levels will not affect the designated uses. In permitting such increases, the department shall consider their potential effects on resident biota and downstream water bodies in addition to the background conditions. Under no circumstances shall an allowed increase over background conditions cause any numeric~~al~~ criteria to be exceeded in any listed water body or any other general or numeric~~al~~ criteria to be exceeded in either listed or unlisted water bodies.

3. — 5.c. …

d. Oyster Propagation. The fecal coliform median ~~most probable number (MPN)~~ shall not exceed 14 fecal coliforms per 100 mL, and not more than 10 percent of the samples shall exceed ~~an MPN of~~ 43 fecal coliforms per 100 mL ~~for a five-tube decimal dilution test~~ in those portions of the area most probably exposed to fecal contamination during the most unfavorable hydrographic and pollution conditions.

6. Toxic Substances. Numeric~~al~~ criteria for specific toxic substances are listed in Table 1.

a. Numeric~~al~~ criteria for specific toxic substances are mostly derived from the following publications of the Environmental Protection Agency: Water Quality Criteria, 1972 (commonly referred to as the "Blue Book"; Quality Criteria for Water, 1976 (commonly

referred to as the "Red Book"; Ambient Water Quality Criteria, 1980 (EPA 440/5-80); Ambient Water Quality Criteria, 1984 (EPA 440/5-84-85); and Quality Criteria for Water, 1986—with updates (commonly referred to as the "Gold Book"). Natural background conditions, however, are also considered. These toxic substances are selected for criteria development because of their known or suspected occurrence in Louisiana waters and potential threat to attainment of designated water uses.

b. The criteria for protection of aquatic life are based on acute and chronic concentrations in fresh and marine waters (see LAC 33:IX.1105) as specified in the EPA criteria documents and are developed primarily for attainment of the fish and wildlife propagation use. Where a specific numeric~~al~~ criterion is not derived in EPA criteria documents, a criterion is developed by applying an appropriate application factor for acute and chronic effects to the lowest LC50 value for a representative Louisiana species. The application of either freshwater toxics criteria or marine toxics criteria in brackish waters will be determined by the average salinity of the water body (see LAC 33:IX.1105). In cases where the average salinity is 2 parts per thousand or greater and less than 10 parts per thousand, the more stringent criteria will be used unless an alternative site-specific criterion is developed (as described in EPA-822-R-02-047, November 2002).

c. — e. …

Commented [JP26]: Section 1113.C.6.c had language referring to the risk level for dioxin and lindane. Since we're postponing Table 1 updates, this citation no longer required an update.

f. The use of clean techniques may be required to definitively assess ambient levels of some pollutants (e.g., EPA Method 1669 for metals) or to assess such pollutants when numeric or narrative water quality criteria~~standards~~ are not being attained. *Clean techniques* are defined in LAC 33:IX.1105.

Table 1 Numerical Criteria for Specific Toxic Substances [In micrograms per liter (µg/L)]								
Toxic Substance Chemical Abstracts Service (CAS) Registry Number	Aquatic Life Protection						Human Health Protection	
	Freshwater		Marine Water		Brackish Water			
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Drinking Water Supply[1]	Non-Drinking Water Supply[2]
Aldrin 309-00-2	3.00	--	1.300	--	1.300	--	$4x10^{-5}$	$4x10^{-5}$
Benzene 71-43-2	2,249	1,125	2,700	1,350	2,249	1,125	0.58	6.59
Benzidine 92-87-5	250	125	--	--	250	125	$8x10^{-5}$	$1.7x10^{-4}$
Bromodichloromethane 75-27-4	--	--	--	--	--	--	0.52	6.884
Bromoform (Tribromomethane) 75-25-2	2,930	1,465	1,790	895	1,790	895	3.9	34.7
Carbon Tetrachloride (Tetrachloromethane) 56-23-5	2,730	1,365	15,000	7,500	2,730	1,365	0.22	1.2
Chlordane 57-74-9	2.40	0.0043	0.090	0.0040	0.090	0.0040	$1.9x10^{-4}$	$1.9x10^{-4}$

Table 1 Numerical Criteria for Specific Toxic Substances [In micrograms per liter (µg/L)]								
Toxic Substance Chemical Abstracts Service (CAS) Registry Number	Aquatic Life Protection						Human Health Protection	
	Freshwater		Marine Water		Brackish Water			
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Drinking Water Supply[1]	Non-Drinking Water Supply[2]
Chloroform (Trichloromethane) 67-66-3	2,890	1,445	8,150	4,075	2,890	1,445	5.3	70
2-Chlorophenol 95-57-8	258	129	--	--	258	129	0.10	126.4
3-Chlorophenol 108-43-0	--	--	--	--	--	--	0.10	--
4-Chlorophenol 106-48-9	383	192	535	268	383	192	0.10	--
Cyanide 57-12-5	45.9	5.4	1.0	--	1.0	--	663.8	12,844
DDE 72-55-9	52.5	10.5000	0.700	0.1400	0.700	0.1400	$1.9x10^{-4}$	$1.9x10^{-4}$
DDT 50-29-3	1.10	0.0010	0.130	0.0010	0.130	0.0010	$1.9x10^{-4}$	$1.9x10^{-4}$

Table 1 Numerical Criteria for Specific Toxic Substances [In micrograms per liter (µg/L)]								
Toxic Substance Chemical Abstracts Service (CAS) Registry Number	Aquatic Life Protection						Human Health Protection	
	Freshwater		Marine Water		Brackish Water			
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Drinking Water Supply[1]	Non-Drinking Water Supply[2]
Dibromochloromethane 124-48-1	--	--	--	--	--	--	0.39	5.08
1,2-Dichloroethane (EDC) 107-06-2	11,800	5,900	11,300	5,650	11,300	5,650	0.36	6.8
1,1-Dichloroethylene 75-35-4	1,160	580	22,400	11,200	1,160	580	0.05	0.58
2,4-Dichlorophenoxyacetic acid (2,4-D) 94-75-7	--	--	--	--	--	--	100.00	--
2,3-Dichlorophenol 576-24-9	--	--	--	--	--	--	0.04	--
2,4-Dichlorophenol 120-83-2	202	101	--	--	202	101	0.30	232.6

Table 1 Numerical Criteria for Specific Toxic Substances [In micrograms per liter (µg/L)]								
Toxic Substance Chemical Abstracts Service (CAS) Registry Number	Aquatic Life Protection						Human Health Protection	
	Freshwater		Marine Water		Brackish Water			
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Drinking Water Supply[1]	Non-Drinking Water Supply[2]
2,5-Dichlorophenol 583-78-8	--	--	--	--	--	--	0.50	--
2,6-Dichlorophenol 87-65-0	--	--	--	--	--	--	0.20	--
3,4-Dichlorophenol 95-77-2	--	--	--	--	--	--	0.30	--
1,-3-Dichloropropene 542-75-6	606	303	79	39.5	79	39.5	0.33	5.51
Dieldrin 60-57-1	0.2374	0.0557	0.710	0.0019	0.2374	0.0019	$5x10^{-5}$	$5x10^{-5}$
Endosulfan[2] 115-29-7	0.22	0.0560	0.034	0.0087	0.034	0.0087	0.47	0.64
Endrin 72-20-8	0.0864	0.0375	0.037	0.0023	0.037	0.0023	0.26	0.26
Ethylbenzene 100-41-4	3,200	1,600	8,760	4,380	3,200	1,600	247	834

Table 1 Numerical Criteria for Specific Toxic Substances [In micrograms per liter (µg/L)]								
Toxic Substance Chemical Abstracts Service (CAS) Registry Number	Aquatic Life Protection						Human Health Protection	
	Freshwater		Marine Water		Brackish Water			
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Drinking Water Supply[1]	Non-Drinking Water Supply[2]
Heptachlor 76-44-8	0.52	0.0038	0.053	0.0036	0.053	0.0036	$7x10^{-5}$	$7x10^{-5}$
Hexachlorobenzene 118-74-1	--	--	--	--	--	--	$2.5x10^{-4}$	$2.5x10^{-4}$
Hexachlorobutadiene[3] 87-68-3	5.1	1.02	1.6	0.32	1.6	0.32	0.09	0.11
Hexachlorocyclohexane (gamma BHC; Lindane) 58-89-9	5.30	0.21	0.160	--	0.160	--	0.11	0.20
Methyl chloride (Chloromethane) 74-87-3	55,000	27,500	27,000	13,500	27,000	13,500	--	--
Methylene chloride (Dichloromethane) 75-09-2	19,300	9,650	25,600	12,800	19,300	9,650	4.4	87

Table 1 Numerical Criteria for Specific Toxic Substances [In micrograms per liter (µg/L)]								
Toxic Substance Chemical Abstracts Service (CAS) Registry Number	Aquatic Life Protection						Human Health Protection	
	Freshwater		Marine Water		Brackish Water			
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Drinking Water Supply[1]	Non-Drinking Water Supply[2]
Phenol (Total)[4] 108-95-2	700	350	580	290	580	290	5.00	50.0
Polychlorinated Biphenyls, Total[6] (PCBs) 1336-36-3	2.00	0.0140	10.000	0.0300	2.00	0.0140	$5.59x10^{-5}$	$5.61x10^{-5}$
TDE (DDD) 72-54-8	0.03	0.0060	1.250	0.2500	0.03	0.0060	$2.7x10^{-4}$	$2.7x10^{-4}$
2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)[5] 1746-01-6	--	--	--	--	--	--	$0.71x10^{-6}$	$0.72x10^{-6}$
1,1,2,2-Tetrachloroethane 79-34-5	932	466	902	451	902	451	0.16	1.8

Table 1 Numerical Criteria for Specific Toxic Substances [In micrograms per liter (µg/L)]								
Toxic Substance Chemical Abstracts Service (CAS) Registry Number	Aquatic Life Protection						Human Health Protection	
	Freshwater		Marine Water		Brackish Water			
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Drinking Water Supply[1]	Non-Drinking Water Supply[2]
Tetrachloroethylene 127-18-4	1,290	645	1,020	510	1,020	510	0.65	2.5
Toluene 108-88-3	1,270	635	950	475	950	475	6,100	46,200
Toxaphene 8001-35-2	0.73	0.0002	0.210	0.0002	0.210	0.0002	$2.4x10^{-4}$	$2.4x10^{-4}$
1,1,1-Trichloroethane 71-55-6	5,280	2,640	3,120	1,560	3,120	1,560	200.0	--
1,1,2-Trichloroethane 79-00-5	1,800	900	--	--	1,800	900	0.56	6.9
Trichloroethylene 79-01-6	3,900	1,950	200	100	200	100	2.8	21

Table 1 Numerical Criteria for Specific Toxic Substances [In micrograms per liter (µg/L)]								
Toxic Substance Chemical Abstracts Service (CAS) Registry Number	Aquatic Life Protection						Human Health Protection	
	Freshwater		Marine Water		Brackish Water			
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Drinking Water Supply[1]	Non-Drinking Water Supply[2]
2-(2,4,5-Trichlorophenoxy) propionic acid (2,4,5-TP; Silvex) 93-72-1	--	--	--	--	--	--	10.00	--
Vinyl Chloride (Chloroethylene) 75-01-4	--	--	--	--	--	--	$2.37x10^{-2}$	0.45

* * *

[6] Total refers to the sum of the Aroclors as stated in 40 CFR 136.3.

[7] Endosulfan is the sum of Endosulfan α and Endosulfan β.

Table 1A
Numerical Criteria for Metals and Inorganics
[In micrograms per liter (µg/L) or parts per billion (ppb)]

Toxic Substance	Aquatic Life Protection						Human Health Protection
	Freshwater		Marine Water		Brackish Water[f]		Drinking Water Supply[a]
	Acute	Chronic	Acute	Chronic	Acute	Chronic	
Arsenic[e]	339.8	150	69.00	36.00	69	36	10.0
Chromium III (Tri)[b,c]	Acute: $e^{(0.8190[\ln(\text{hardness})] + 3.6880)} \times 0.316$ Chronic: $e^{(0.8190[\ln(\text{hardness})] + 1.5610)} \times 0.86$		515.00	103.00	*	*	50.0
Chromium VI (Hex)[c]	16	11	1,100	50.00	16	11	50.0
Zinc[b,c]	Acute: $e^{(0.8473[\ln(\text{hardness})] + 0.8604)} \times 0.978$ Chronic: $e^{(0.8473[\ln(\text{hardness})] + 0.7614)} \times 0.986$		90	81	*	*	5,000
Cadmium[b,c]	Acute: $e^{(1.1280[\ln(\text{hardness})] - 1.6774)} \times (1.136672 - [\ln(\text{hardness})(0.041838)])$ Chronic: $e^{(0.7852[\ln(\text{hardness})] - 3.4900)} \times (1.101672 - [\ln(\text{hardness})(0.041838)])$		45.35	10.00	*	*	10.0
Copper[b,c]	Acute: $e^{(0.9422[\ln(\text{hardness})] - 1.3844)} \times 0.960$ Chronic: $e^{(0.8545[\ln(\text{hardness})] - 1.3860)} \times 0.960$		3.63	3.63	*	*	1000
Lead[b,c]	Acute: $e^{(1.2730[\ln(\text{hardness})] - 1.4600)} \times (1.46203 - [\ln(\text{hardness})(0.145712)])$ Chronic: $e^{(1.2730[\ln(\text{hardness})] - 4.7050)} \times (1.46203 - [\ln(\text{hardness})(0.145712)])$		209	8.08	*	*	50.0
Mercury[e]	2.04[d]	0.012[e]	2[d]	0.025[e]	2[d]	0.012[e]	2.0
Nickel[b,c]	Acute: $e^{(0.8460[\ln(\text{hardness})] + 3.3612)} \times 0.998$ Chronic: $e^{(0.8460[\ln(\text{hardness})] + 1.1645)} \times 0.997$		74	8.2	*	*	--

* For hardness-dependent criteria, values are calculated using average hardness (mg/L $CaCO_3$) from two-year data compilations contained in the latest Louisiana Water Quality Data Summary

~~or other comparable data compilations or reports, as described in LAC 33:IX.1113.C.6.~~

~~[a] Applies to surface water bodies designated as Drinking Water Supply and also protects for primary and secondary contact recreation and fish consumption.~~

~~[b] Hardness-dependent criteria for freshwater are based on the natural logarithm formulas multiplied by conversion factors (CF) for acute and chronic protection. The minimum and maximum hardness values used for criteria calculation are 25 mg/L and 400 mg/L $CaCO_3$, as specified in 40 CFR 131.36.~~

~~[c] Freshwater and saltwater metals criteria are expressed in terms of the dissolved metal in the water column. The standard was calculated by multiplying the previous water quality criteria by a conversion factor (CF). The CF represents the EPA recommended conversion factors found in EPA-822-R-02-047, November 2002.~~

~~[d] Conversion factor is from: Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria, October 1, 1993. Factors were expressed to two decimal places.~~

~~[e] It is not appropriate to apply CF to chronic value for mercury because it is based on mercury residues in aquatic organisms rather than toxicity.~~

~~[f] According to LAC 33:IX.1113.C.6.d, the most stringent criteria (freshwater or marine) will be used.~~

Table 1A
Numeric Criteria for Metals and Inorganics
[In micrograms per liter (µg/L) or parts per billion (ppb)]

Toxic Substance Chemical Abstracts Service (CAS) Registry Number	Aquatic Life Protection			Human Health Protection
	Freshwater	Marine Water	Brackish Water[d]	Drinking Water Supply[c]
Ammonia (in mg TAN/L)[g] 7664-41-7	**Acute:** $0.7249 \times \left(\frac{0.0114}{1+10^{7.204-pH}} + \frac{1.6181}{1+10^{pH-7.204}}\right) \times min\left(51.93, 23.12 \times 10^{0.036\times(20-T)}\right)$ **Chronic:** $0.8876 \times \left(\frac{0.0278}{1+10^{7.688-pH}} + \frac{1.1994}{1+10^{pH-7.688}}\right) \times \left(2.126 \times 10^{0.028\times(20-max(T,7))}\right)$	--	--	--
Arsenic[a] 7440-38-2	**Acute:** 339.8 **Chronic:** 150	**Acute:** 69 **Chronic:** 36	**Acute:** 69 **Chronic:** 36	10
Cadmium[a,b] 7440-43-9	**Acute:** $e^{(1.1280[\ln(\text{hardness})] - 1.6774)} \times CF_1$ **Chronic:** $e^{(0.7852[\ln(\text{hardness})] - 3.4900)} \times CF_2$	**Acute:** 45 **Chronic:** 10	**Acute:** * **Chronic:** *	10
Chromium III (Tri)[a,b] 16065-83-1	**Acute:** $e^{(0.8190[\ln(\text{hardness})] + 3.6880)} \times 0.316$ **Chronic:** $e^{(0.8190[\ln(\text{hardness})] + 1.5610)} \times 0.86$	**Acute:** 515 **Chronic:** 103	**Acute:** * **Chronic:** *	50
Chromium VI (Hex)[a] 18540-29-9	**Acute:** 16 **Chronic:** 11	**Acute:** 1,100 **Chronic:** 50	**Acute:** 16 **Chronic:** 11	50
Copper[a,b,h] 7440-50-8	**Acute:** $e^{(0.9422[\ln(\text{hardness})] - 1.3844)} \times 0.960$ **Chronic:** $e^{(0.8545[\ln(\text{hardness})] - 1.3860)} \times 0.960$	**Acute:** 3.63 **Chronic:** 3.63	**Acute:** * **Chronic:** *	1,000
Lead[a,b] 7439-92-1	**Acute:** $e^{(1.2730[\ln(\text{hardness})] - 1.4600)} \times CF_3$ **Chronic:** $e^{(1.2730[\ln(\text{hardness})] - 4.7050)} \times CF_3$	**Acute:** 209 **Chronic:** 8.08	**Acute:** * **Chronic:** *	50
Mercury 7439-97-6	**Acute:** 2.04[e] **Chronic:** 0.012[f]	**Acute:** 2[e] **Chronic:** 0.025[f]	**Acute:** 2[e] **Chronic:** 0.012[f]	2.0
Nickel[a,b] 7440-02-0	**Acute:** $e^{(0.8460[\ln(\text{hardness})] + 3.3612)} \times 0.998$ **Chronic:** $e^{(0.8460[\ln(\text{hardness})] + 1.1645)} \times 0.997$	**Acute:** 74 **Chronic:** 8.2	**Acute:** * **Chronic:** *	--
Zinc[a,b] 7440-66-6	**Acute:** $e^{(0.8473[\ln(\text{hardness})] + 0.8604)} \times 0.978$ **Chronic:** $e^{(0.8473[\ln(\text{hardness})] + 0.7614)} \times 0.986$	**Acute:** 90 **Chronic:** 81	**Acute:** * **Chronic:** *	5,000

Table 1A Numeric Criteria for Metals and Inorganics [In micrograms per liter (µg/L) or parts per billion (ppb)]				
Toxic Substance	**Aquatic Life Protection**			**Human Health Protection**
Chemical Abstracts Service (CAS) Registry Number	**Freshwater**	**Marine Water**	**Brackish Water[d]**	**Drinking Water Supply[c]**
Conversion Factor (CF)	CF_1 calculated as: 1.136672-[ln (hardness)(0.041838)] CF_2 calculated as: 1.101672-[ln (hardness)(0.041838)] CF_3 calculated as: 1.46203-[ln (hardness)(0.145712)]			

* For hardness-dependent criteria, values are calculated using average hardness (mg/L $CaCO_3$) from two-year data compilations contained in the latest Louisiana Water Quality Data Summary or other comparable data compilations or reports, as described in LAC 33:IX.1113.C.6.

[a] Freshwater and saltwater metals criteria are expressed in terms of the dissolved metal in the water column. The standard was calculated by multiplying the previous water quality criteria by a conversion factor. The conversion factor represents the EPA-recommended conversion factors found in EPA-822-R-02-047, November 2002.

[b] Hardness-dependent criteria for freshwater are based on the natural logarithm formulas multiplied by conversion factors for acute and chronic protection. The minimum and maximum hardness values used for criteria calculation are 25 mg/L and 400 mg/L $CaCO_3$, as specified in 40 CFR 131.36.

[c] Applies to surface water bodies designated as drinking water supply and also protects for primary and secondary contact recreation and fish consumption.

[d] According to LAC 33:IX.1113.C.6.d, the most stringent criteria (freshwater or marine) will be used.

[e] Conversion factor is from: Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria, October 1, 1993. Factors were expressed to two decimal places.

[f] It is not appropriate to apply a conversion factor to the chronic value for mercury since it is based on mercury residues in aquatic organisms rather than toxicity.

[g] For temperature (T, in ºC) and pH dependent criteria, values are calculated using the temperature and pH measured at the time of sampling in coordination with the ambient water quality monitoring program.

[h] Upon request the administrative authority may grant the use of the Biotic Ligand Model for deriving site-specific copper criteria utilizing the procedures identified in EPA's *Aquatic Life Ambient Freshwater Quality Criteria - Copper* (2007), EPA-822-R-07-001. Site-specific criteria derived using the Biotic Ligand Model are new and revised water quality standards that require EPA review under section 303(c) of the Clean Water Act.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2074(B)(1).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 10:745 (October 1984), amended LR 15:738 (September 1989), LR 17:264 (March 1991), LR 17:967 (October 1991), repromulgated LR 17:1083 (November 1991), amended LR 20:883 (August 1994), LR 24:688 (April 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:2402 (December 1999), LR 26:2547 (November 2000), LR 27:289 (March 2001), LR 30:1474 (July 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 33:457 (March 2007), LR 33:829 (May 2007), LR 35:446 (March 2009), amended by the Office of the Secretary, Legal Division, LR 42:736 (May 2016), amended by the Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 45:1188 (September 2019), LR 46:

§1115. Application of Standards

A. Background

1. The w~~W~~ater quality standards set forth in this Chapter ~~specify concentration limits and other water quality characteristics which, if not exceeded,~~ are ~~expected to result in an~~

~~aquatic ecosystem suitable for~~ the foundation for a range of programs that establish water quality goals for water body segments~~highest designated uses given~~ thereby ensuring suitable aquatic ecosystems. ~~These concentration limits and characteristics (criteria)~~ Water quality standards are derived for individual water segments on the basis of the designated use or uses of the segment and the natural qualities of the waters.

Commented [JP27]: Rephrased

2. An established water quality ~~value (~~criterion~~)~~ represents the general or numeric~~al~~ concentration limit or characteristic of a constituent in a water body segment that is allowed by the state. For some toxic substances, however, criteria provide both acute and chronic limits for the protection of aquatic life in fresh and marine waters, and separate limits for the protection of human health. Criteria apply at all times, except where natural conditions cause them to be exceeded or where specific exemptions in the standards apply. Water uses, pollution sources, natural conditions, and the water quality criteria are all considered in the department's determination of appropriate permit limits for each wastewater discharge to a water body.

3. The difference between an ambient concentration and a water quality criterion ~~value~~ should not be construed as the amount of a constituent that can be discharged. The antidegradation statement requires that all waters which exceed the water quality standards be maintained at their existing high quality, which can be lowered only after ~~appropriate~~ demonstrating that allowing lower water quality is necessary to accommodate important economic and or social ~~justification~~ development in the area in which the waters are located ~~has been shown~~. In addition, before a lowering of high water quality can be allowed, an analysis of alternatives shall be performed to demonstrate that the lowering of high water quality is necessary. More stringent requirements apply to those waters designated as outstanding natural resource waters, as described in LAC 33:IX.1109.A.3.

B. — C.1. …

2. Mixing zones are exempted from general and numerical criteria as specified in LAC 33:IX.1113, except as required in Paragraph C.5 of this Section. The waters outside of mixing zones must meet all the standards for that particular body of water. For toxic substances, this requires meeting chronic aquatic life criteria beginning at the edge of the mixing zone.

3. — 5.b. …

c. materials in concentrations that will cause acute toxicity to aquatic life. Acute toxicity refers to aquatic life lethality or other deleterious effects caused by the passage through a mixing zone of migrating fish moving up or downstream, or by the passage through a mixing zone of less mobile forms such as zooplankton that drift through the mixing zone. Numerical acute criteria or other acute quantitative limits for toxic substances will be applied in the mixing zone to protect aquatic life from acute toxicity.

6. —Table 2b. …

* * *

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2074(B)(1).
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 10:745 (October 1984), amended LR 15:738 (September 1989), LR 17:264 (March 1991), LR 17:967 (October 1991), repromulgated LR 17:1083 (November 1991), amended LR 20:883 (August 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:2403 (December 1999), LR 26:2548 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 33:831 (May 2007), amended by the Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 46:

§1119. Implementation Plan for Antidegradation Policy

A. — B.2. …

a. The state establishes the water quality standards specified in this Chapter to reflect the goals for individual water bodies and provide the legal basis for antidegradation and for water pollution control. This Chapter also defines and designates water

uses and criteria to protect thoseam uses.

b. — C.3. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2074(B)(1).
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 15:738 (September 1989), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2548 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 33:831 (May 2007), amended by the Office of the Secretary, Legal Division, LR 40:2244 (November 2014), amended by the Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 46:

§1121. Regulation of Toxic Substances Based on the General Criteria

A. Introduction

1. The water quality standards in this Chapter provide for the protection of human, plant, and animal life from the deleterious effects of toxic substances. The general criteria (LAC 33:IX.1113.B.5), in particular, require that state waters be free from the effects of toxic substances. This requirement is especially applicable to those toxic substances for which no numerical criteria are established.

2. The following methods are developed to protect state waters from the effects of toxic substances as required under the general criteria and where no numerical criteria exist. The methods follow the permitting policies of the departmentLouisiana Water Discharge Permit System (LWDPS). The resulting permit (effluent) limitations imposed on discharges prevent toxic in-stream conditions as required under the general criteria.

B. — E.2. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2074(B)(1).
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 15:738 (September 1989), amended LR 17:264 (March 1991), LR 20:883 (August 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:2404 (December 1999), LR 26:2548 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2507 (October 2005), LR 33:832 (May 2007), LR 33:2163 (October 2007), amended by the Office of the Secretary, Legal Affairs and Criminal

Investigations Division, LR 46:

§1123. Numerical Criteria and Designated Uses

A. — A.2. …

* * *

B. Explanation of Water Body Code Number. The water body subsegment number and unique water body identification code are designated as follows:

AABBCC XXX

where:

AA = Water Quality Management Basin Number

BB = Segment Number

CC = Subsegment Number

XXX = A minimum of three digits Unique Water Body Identification Code (If a Unique Water Body Identification Code is not identified for a particular Subsegment, then all water bodies within that Subsegment have the same designated uses and numerical criteria.)

Example:

090207 5112 = Water Body Subsegment and Identification Code for Morgan BayouMiddle Pearl River and West Middle Pearl River

where:

09 = Pearl River Management Basin

0902 = Segment 0902 of the Pearl River Management Basin

090207= Subsegment 090207 of Pearl River Management Basin Segment 02

5112 = Four-digit Unique Water Body Identification Code for Morgan Bayou

C. Numeric~~al~~ Criteria Unit Definitions

1. Parameter Abbreviations. The following abbreviations of water quality parameters are used in Table 3 under the subheading "Numeric~~al~~ Criteria."

* * *

2. Bacterial Criteria (BAC)

a. The code numbers associated with the following designated uses are used in Table 3 under the Numeric~~al~~ Criteria subheading “BAC.”

* * *

b. The code number identified under the Numeric~~al~~ Criteria subheading "BAC" in Table 3 represents the most stringent bacterial criteria that apply to each individual subsegment. Where applicable, additional bacterial criteria also apply, depending on the designated uses of the subsegment and the geographic location of the subsegment. The specified numeric bacterial criteria for each designated use listed in this Paragraph can be found in LAC 33:IX.1113.C.

D. — E. …

Commented [JP28]: Previous version had table with no changes; legal took it out.

Commented [JP29]: Previous version had table with no changes; legal took it out.

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
Atchafalaya River Basin (01)									
* * *									
010401	East Atchafalaya Basin and Morganza Floodway South to Interstate -10 Canal	A B C	65	70	5.0	6.5-8.5	1	33	440

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
010501	Lower Atchafalaya Basin Floodway—From Whiskey Bay Pilot Channel at mile 54 to US Highway 90 bridge in Morgan City; includes Grand Lake and Six-Mile Lake	A B C D	65	70	5.0	6.5-8.5	1	33	440

* * *

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
010801	Atchafalaya River—From ICWW south of Morgan City to Atchafalaya Bay; includes Sweet~~water~~bay Lake and Bayou Shaffer	A B C	500	150	5.0	6.5-9.0	1	35	1,000
010802	Wax Lake Outlet—From ICWW~~US 90 bridge~~ to Atchafalaya Bay; includes Wax Lake	A B C	500	150	5.0	6.5-9.0	1	35	1,000

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
010803	Intracoastal Waterway—From Bayou Boeuf Lock to Bayou Sale; includes Wax Lake Outlet to US Highway ~~-~~90	A B C	65	70	5.0	6.0-8.5	1	32	440
* * *									
Barataria Basin (02)									
* * *									
020201	Bayou Des Allemands—From Lac Des Allemands to ~~old~~ US ~~-~~Highway 90 (Scenic)	A B C G	600	100	2.3 Mar.-Nov.; 5.0 Dec.-Feb.	6.0-8.5	1	32	1,320

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
* * *									
020301	Bayou Des Allemands—From US Highway 90 to Lake Salvador (Scenic)	A B C G	600	100	2.3 Mar.-Nov.; 5.0 Dec.-Feb.	6.0-8.5	1	32	1,320
* * *									
020303	Lake Cataouatche and Tributaries	A B C	500	150	3.3 April-Sept.; 5.0 Oct.-Mar.	6.0-8.5	1	32	1,000

Commented [JP30]: No changes to 020303. I'm guessing legal cited it to indicate changes to 020303-001.

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
020303-001	Luling Wetland – Forested wetland located 1.8 miles south of US-90 at Luling, east of the Luling wastewater treatment pond, bordered by Cousin Canal to the west and Louisiana Cypress Lumber Canal to the south	B C	[23]	[23]	[23]	[23]	2	[23]	[23]

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
020304	Lake Salvador	A B C	600	100	3.3 April-Sept.; 5.0 Oct.-Mar.	6.0-8.5	1	32	1,320

Commented [JP31]: No changes to 020304; maybe legal citation tracking convention?

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
020305	Luling Wetland—Forested wetland located 1.8 miles south of US Highway 90 at Luling, east of the Luling wastewater treatment pond, bordered by Cousin Canal to the west and Louisiana Cypress Lumber Canal to the south	B C	[23]	[23]	[23]	[23]	2	[23]	[23]
* * *									

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
020903	Barataria Waterway—From Bayou Rigolettes to Grand Bayou (Estuarine)	A B C	N/A	N/A	3.8 June-Aug.; 4.0 Sept.-May	6.5-9.0	1 [25]	35	N/A
* * *									
Calcasieu River Basin (03)									
030101	Calcasieu River—From headwaters to LAa. Highway 8	A B C F	65	35	5.0	6.0-8.5	1	32	225
030102	Calcasieu River—From LAa. Highway 8 to the Rapides-Allen Parish line (Scenic)	A B C F G	65	35	5.0	6.0-8.5	1	32	225

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
030103	Calcasieu River—From Rapides-Allen Parish line to Marsh Bayou (Scenic) [10]	A B C F G-[10]	65	35	5.0	6.0-8.5	1	32	225
~~030103-04075~~	~~Kinder Ditch—From headwaters of unnamed tributary to confluence with Calcasieu River~~	~~B C~~	~~65~~	~~35~~	~~3.0~~	~~6.0-8.5~~	~~1~~	~~32~~	~~225~~
030104	Mill Creek—From headwaters to Calcasieu River	A B C	60	60	5.0	6.0-8.5	1	32	250

Commented [JP32]: No changes o 030103.

Commented [JP33]: No changes to 030104.

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
030105	Kinder Ditch—From confluence of unnamed tributary with Bayou Serpent to confluence with Calcasieu River	B C	65	35	3.0	6.0-8.5	1	32	225
* * *									
030401	Calcasieu River—From ~~below~~ Moss Lake to the Gulf of Mexico; includes Ship Channel, West Cove and Monkey Island Loop (Estuarine)	A B C E	N/A	N/A	4.0	6.0-8.5	4 [25]	35	N/A
* * *									

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
030506	Bundicks Creek—From headwaters to Bundicks Lake (Scenic)	A B C	20	20	5.0	6.0-8.5	1	30	150
* * *									
030508	Bundicks Creek—From Bundicks Lake to Whiskey Chitto Creek (Scenic)	A B C	20	20	5.0	6.0-8.5	1	30	150
030601	Barnes Creek—From headwaters to Little Barnes Creek (Scenic)	B C	60	60	[2]	6.0-8.5	2	30	150

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
030602	Barnes Creek—From Little Barnes Creek to Calcasieu River (Scenic)	A B C	60	60	5.0	6.0-8.5	1	32	250
		* * *							
030701	Bayou Serpent—From headwaters to Calcasieu River	A B C F	250	75	5.0	6.0-8.5	1	32	300
		* * *							
030802	Hickory Branch—From headwaters to West Fork Calcasieu River (Scenic)	A B C F	250	75	5.0	6.0-8.5	1	32	500

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
030803	Beckwith Creek—From headwaters to West Fork Calcasieu River (Scenic)	A B C F	25	25	5.0	6.0-8.5	1	32	100
* * *									
030806	Houston River—From Bear Head Creek at L~~A~~a. Highway ~~-~~12 to West Fork Calcasieu River	A B C F	250	75	[3]	6.0-8.5	1	32	500

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
~~030806-554700~~	~~Houston River Canal—From 1 mile west of LA-388 to its terminuses at Mossville and the Houston River~~	~~A B C D F~~	~~250~~	~~75~~	~~[3]~~	~~6.0-8.5~~	~~1~~	~~32~~	~~500~~
030807	Bear Head Creek—From headwaters to Houston River at L~~A~~a. Highway ~~-~~12	A B C	250	75	5.0	6.0-8.5	1	32	500

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
030808	Houston River Canal—From 1 mile west of La. Highway 388 to its terminuses at Mossville and the Houston River	A B C D F	250	75	[3]	6.0-8.5	1	32	500
* * *									

Table 3. Numeric~~al~~ Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numeric~~al~~ Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
031002	Intracoastal Waterway—From ~~West~~ Calcasieu River Basin western boundary to Calcasieu Ship Channel; includes Old Canal~~Lock~~ (Estuarine)	A B C	N/A	N/A	4.0	6.0-8.5	1 [25]	35	N/A

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
031101	Intracoastal Waterway—From Calcasieu River~~Lock~~ to Creole Canal at Gibbstown~~East Calcasieu River Basin boundary~~	A B C	250	75	5.0	6.5-9.0	1	32	500
* * *									
Lake Pontchartrain Basin (04)									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
040101	Comite River, Comite Creek, and Little Comite Creek—From ~~Little Comite Creek and Comite Creek at~~ Mississippi state line to Wilson-Clinton Highway	A B C	25	10	5.0	6.0-8.5	1	32	150
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
040305	Colyell Bay; includes Colyell Creek and Middle Colyell Creek—From Hood Road to Amite River~~Colyell Bay~~	A B C	25	10	2.3 Mar.-Nov.; 5.0 Dec.-Feb.	6.0-8.5	1	32	150
* * *									
040401	Blind River—From Amite River Diversion Canal to ~~mouth at~~ Lake Maurepas (Scenic)	A B C G	250	75	2.3 Mar.-Nov.; 4.0 Dec.-Feb. [9]	6.0-8.5	1	30	500
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
040502	Blood River—From headwaters to George White Road	A B C	10	5	5.0	6.0-8.5	1	30	55
040502	Tickfaw River—From La. Highway 42 to Lake Maurepas	A B C	10	5	2.3 Mar.-Nov.; 5.0 Dec.-Feb.	6.0-8.5	1	30	55
* * *									
040506	Tickfaw River—From La. Highway 42 to Lake Maurepas	A B C	10	5	2.3 Mar.-Nov.; 5.0 Dec.-Feb.	6.0-8.5	1	30	55

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
040506	Blood River—From headwaters to George White Road	A B C	10	5	5.0	6.0-8.5	1	30	55
* * *									
040604	South Slough; includes Anderson Canal and Interstate Highway 55 borrow pit canal to North Pass	A B C	30	20	2.3 Mar.-Nov.; 5.0 Dec.-Feb.	6.0-8.5	1	30	150

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
040604-001	South Slough Wetland – Forested freshwater and brackish marsh located 1.4 miles south of Ponchatoula, directly east of Interstate Highway 55, extending to North Pass to the south and Tangipahoa River to the east	B C	[23]	[23]	[23]	[23]	2	[23]	[23]

Table 3. Numeric~~al~~ Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numeric~~al~~ Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
040605	Mississippi Bayou and associated canals; includes Dutch Bayou, Reserve Relief Canal and Hope Canal	A B C	1,600	200	2.3 Mar.-Nov.; 5.0 Dec.-Feb.	6.0-8.5	1	32	3,000
* * *									

Commented [JP34]: We kept as is and deleted Sandy's recommendation with the semicolon, em-dash, and uppercase "I".

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
040607	South Slough Wetland—Forested freshwater and brackish marsh bounded to the north by South Slough, west by Interstate Highway 55 borrow pit canal, and south by North Pass	B C	[23]	[23]	[23]	[23]	2	[23]	[23]

* * *

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
040704	Chappepeela Creek—From headwaters~~La. Highway 1062~~ to Tangipahoa River	A B C G	20	20	5.0	6.0-8.5	1	30	140
* * *									
~~040802~~	~~Ponchitolawa Creek—From headwaters to US Highway 190 (Scenic)~~	~~A B C G~~	~~850~~	~~135~~	~~5.0~~	~~6.0-8.5~~	~~1~~	~~30~~	~~1,850~~

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
040802	Tchefuncte River—From US Highway 190 to Bogue Falaya River; includes tributaries (Scenic)	A B C G	20	10	2.3 Mar.-Nov.; 5.0 Dec.-Feb.	6.0-8.5	1	30	110

* * *

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
040806	East Tchefuncte Marsh Wetland—Freshwater and brackish marsh ~~located just west of Mandeville~~, bounded on the south by Lake Pontchartrain, ~~the~~ west by Tchefuncte River, ~~the~~ north by La. Highway 22, and ~~the~~ east by Sanctuary Ridge	B C	[23]	[23]	[23]	[23]	2	[23]	[23]

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
040807	Ponchitolawa Creek—From headwaters to US Highway 190	A B C	850	135	5.0	6.0-8.5	1	30	1,850
~~040807~~	~~Tchefuncte River—From US Highway 190 to Bogue Falaya River; includes tributaries (Scenic)~~	~~A B C G~~	~~20~~	~~10~~	~~2.3 Mar.-Nov.; 5.0 Dec.-Feb.~~	~~6.0-8.5~~	~~1~~	~~30~~	~~110~~
* * *									
041001	Lake Pontchartrain—West of US-Highway 11 bridge (Estuarine)	A B C	N/A	N/A	4.0	6.5-9.0	1 [25]	32	N/A

Commented [JP35]: This waterbody is not Scenic according to LDWF. According to John Sheehan, this error was introduced into regulations with the eLMRAP delineation a few years ago and caught during the triennial subsegment review. I didn't catch it during my own review.

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
* * *									
041802	Bayou Chaperon (Scenic) (Estuarine)	A B C G	N/A	N/A	4.0	6.5-9.0	1 [25]	35	N/A
* * *									
041901	Mississippi River Gulf Outlet (MRGO)—From ICWW to MRGO closure structure~~Breton Sound~~ at ~~MRGO~~ mile 23.~~8~~0	A B C E	N/A	N/A	5.0	6.5-9.0	4 [25]	35	N/A
* * *									
Mermentau River Basin (05)									
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
050402	Lake Arthur and Lower Mermentau River to ICWW~~Grand Lake~~	A B C	90	30	5.0	6.0-8.5	1	32	260
			* * *						
050601	Lacassine Bayou—From headwaters to ICWW~~Grand Lake~~	A B C F	90	10	[16]	6.0-8.5	1	32	400
			* * *						
050802	Big Constance Lake~~; includes associated water bodies~~ (Estuarine)	A B C	N/A	N/A	4.0	6.5-9.0	1 [25]	35	N/A
			* * *						
Vermilion-Teche River Basin (06)									
			* * *						

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
060201	Bayou Cocodrie—From US Highway 167 to Bayou Boeuf-Cocodrie Diversion Canal (Scenic)	A B C G	45	35	[19]	6.0-8.5	1	32	100
* * *									
060210	Bayou Carron—From headwaters to Little Bayou Teche	A B C	40	30	5.0	6.0-8.5	1	32	220
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
060212	Chatlin Lake Canal and Bayou DuLac—From Alexandria to Bayou des Glaises Diversion Canal; includes a portion of Bayou Ddes Glaises	A B C	45	35	5.0	6.0-8.5	1	32	100
* * *									
060701	Tete Bayou—From headwaters to Lake Fausse Point	A B C	80	50	5.0	6.0-8.5	1	32	350
060702	Lake Fausse Point and Dauterive Lake	A B C D	80	50	5.0	6.0-8.5	1	32	350

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
060703	Bayou Du Portage—From headwaters to Dauterive Lake	A B C	80	50	5.0	6.0-8.5	1	32	350
060801	Vermilion River—From headwaters to LAa. Highway-3073 bridge	A B C F	230	70	5.0	6.0-8.5	1	32	440

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
~~060801-001~~	~~Cote Gelee Wetland—Forested wetland located in Lafayette Parish, 2 miles east of Broussard, 2 miles northeast of US 90, and west of Bayou Tortue~~	~~B C~~	~~[23]~~	~~[23]~~	~~[23]~~	~~[23]~~	~~2~~	~~[23]~~	~~[23]~~
060802	Vermilion River—From L~~A~~a. Highway ~~-~~3073 bridge to ICWW	A B C F	230	70	[6]	6.0-8.5	1	32	440
* * *									

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
060805	Breaux Bridge Swamp—Forested wetland in St. Martin Parish, 1/2 mile southwest of Breaux Bridge, southeast of LAa. Highway 94, west of Bayou Teche, east of Vermilion River, and north of Evangeline and Ruth Canals; also called Cyprière Perdue Swamp	B C	[5]	[5]	[5]	[5]	2	[5]	[5]

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
060806	Cypress Island Coulee Wetland—Forested wetland located in St. Martin Parish, 2 miles west of St. Martinville, 1/2 mile north of L~~A~~ a. Highway 96, west of Bayou Teche, and east of Vermilion River	B C	[23]	[23]	[23]	[23]	2	[23]	[23]

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
060807	Cote Gelee Wetland—Forested wetland located in Lafayette Parish, 2 miles east of Broussard, 2 miles northeast of US Highway 90, and west of Bayou Tortue	B C	[23]	[23]	[23]	[23]	2	[23]	[23]
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
060902	Bayou Carlin—From Lake Peigneur to Bayou Tigre~~Petite Anse~~; also called Delcambre Canal (Estuarine)	A B C	N/A	N/A	4.0	6.5-9.0	1 [25]	35	N/A
* * *									
Mississippi River Basin (07)									
* * *									
070504	Monte Sano Bayou—From US Highway ~~-~~61 to Mississippi River [7], [8]	B L	[7]	[7]	3.0	6.0-9.0	1	35 [8]	[7]
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
Ouachita River Basin (08)									
* * *									
080401	Bayou Bartholomew—From Arkansas state line to Ouachita River; also known as Bayou Desiard and Lake Bartholomew (Scenic to Dead Bayou)	A B C G	55	35	5.0	6.0-8.5	1	32	420
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
080801	South Cheniere Creek—From headwaters to Cheniere Brake Lake	A B C	25	25	5.0	6.0-8.5	1	32	100
* * *									
080904	Bayou Lafourche—From headwaters~~near Oakridge~~ to Boeuf River near Columbia	A B C	500	200	5.0	6.0-8.5	1	32	1,500
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
081201	Tensas River—From headwaters to confluence with Ouachita River~~Jonesville~~; includes Tensas Bayou	A B C	45	30	5.0	6.0-8.5	1	32	500
* * *									
081301	Little River—From dam at Archie ~~Dam~~ to Ouachita River	A B C	95	10	5.0	6.0-8.5	1	32	265
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
081601	Little River—From Castor Creek-Dugdemona River confluence to Bear Creek (Scenic)	A B C G	250	500	5.0	6.0-8.5	1	33	1,000
~~081601-556716~~	~~Georgetown Reservoir~~	~~A B C G D~~	~~250~~	~~500~~	~~5.0~~	~~6.0-8.5~~	~~1~~	~~33~~	~~1,000~~
081602	Little River—From Bear Creek to Catahoula Lake (Scenic)	A B C G	50	75	5.0	6.0-8.5	1	33	260
* * *									
081605	Little River—From Catahoula Lake to ~~D~~dam at Archie	A B C	50	75	5.0	6.0-8.5	1	33	260
* * *									

Commented [JP36]: No change to 081602.

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
081612	Georgetown Reservoir	A B C D G	250	500	5.0	6.0-8.5	1	33	1,000
Pearl River Basin (09)									
* * *									
090102	East Pearl River—From Holmes Bayou to Interstate -10	A B C	20	15	5.0	6.0-8.5	1	32	180
090103	East Pearl River—From Interstate -10 to Lake Borgne (Estuarine)	A B C	N/A	N/A	4.0	6.0-8.5	1 [25]	35	N/A
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
090202	West Pearl River—From Holmes Bayou to The Rigolets; includes east and west mouths (Scenic)	A B C G	90	20	5.0	6.0-8.5	1	32	235
~~090202-5126~~	~~Morgan River – From Porters River to West Pearl River (Scenic)~~	~~A B C G~~	~~90~~	~~20~~	~~5.0~~	~~6.0-8.5~~	~~1~~	~~32~~	~~235~~
090203	Lower Bogue Chitto—From Pearl River Navigation Canal to Wilsons Slough	A B C	15	10	5.0	6.0-8.5	1	32	105

Commented [JP37]: No change to 090202.

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;
D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
090204	Pearl River Navigation Canal—From below Lock No. 3 to West Pearl River	A B C	15	10	5.0	6.0-8.5	1	32	105
090205	Wilson Slough and Bradley Slough—From Pearl River~~Bogue Chitto~~ to West Pearl River (Scenic)	A B C G	15	10	5.0	6.0-8.5	1	32	105
~~090206~~	~~Bradley Slough—From Bogue Chitto to West Pearl River (Scenic)~~	~~A B C G~~	~~15~~	~~10~~	~~5.0~~	~~6.0-8.5~~	~~1~~	~~32~~	~~105~~

Table 3. Numeric~~al~~ Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numeric~~al~~ Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
090207	Middle Pearl River and West Middle Pearl River—From West Pearl River to Little Lake	A B C	90	20	5.0	6.0-8.5	1	32	235
~~090207-5112~~	~~Morgan Bayou—From headwaters near I-10 to Middle River~~	~~A B C~~	~~90~~	~~20~~	~~5.0~~	~~6.0-8.5~~	~~1~~	~~32~~	~~235~~
090208	Little Lake (Estuarine)	A B C	N/A	N/A	4.0	6.0-8.5	1 [25]	32	N/A
090209	Morgan River—From Porters River to West Pearl River (Scenic)	A B C G	90	20	5.0	6.0-8.5	1	32	235
* * *									

Commented [JP38]: No change to 090207.

Commented [JP39]: No change to 090208.

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
090503	Little Silver Creek—From headwaters to Big Silver Creek~~Bogue Chitto River~~	A B C	15	10	5.0	6.0-8.5	1	35	105
* * *									
Red River Basin (10)									
100101	Red River—From Arkansas state line to US Highway ~~-~~165 in Alexandria	A B C D F	185	110	5.0	6.0-8.5	1	34	780
100201	Red River—From US Highway ~~-~~165 to Old River Control Structure Outflow Channel	A B C	185	110	5.0	6.0-8.5	1	34	780

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
* * *									
100301	Black Bayou—From Texas state line to L~~A~~a. Highway -1 at Black Bayou Lake	A B C F	250	25	5.0	6.0-8.5	1	33	500
100302	Black Bayou Lake—From L~~A~~a. Highway -1 to spillway	A B C	250	25	5.0	6.0-8.5	1	33	500
* * *									
100601	Bayou Pierre—From headwaters to Rolling Lake Bayou ~~Pierre~~	A B C F	150	75	5.0	6.0-8.5	1	32	500
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
100606	Bayou Pierre—From Rolling~~Sawing~~ Lake Bayou to Red River	A B C D F	150	75	5.0	6.0-8.5	1	32	500
* * *									
100704	Kepler Creek—From headwaters to Kepler Creek Lake	A B C F	25	25	5.0	6.0-8.5	1	32	79
100705	Kepler Creek Lake	A B C F	25	25	5.0	6.0-8.5	1	32	79
100706	Kepler Creek—From Kepler Creek Lake to Black Lake Bayou	A B C F	25	25	5.0	6.0-8.5	1	32	79
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
100902	Nantaches Lake	A B C F	25	25	5.0	6.0-8.5	1	32	100
~~100903~~	~~Bayou Nantaches — From Nantaches Lake to Red River~~	~~A B C F~~	~~25~~	~~25~~	~~5.0~~	~~6.0-8.5~~	~~1~~	~~32~~	~~100~~
101001	Sibley Lake	A B C D F	25	25	5.0	6.0-8.5	1	32	100
* * *									
101507	Old Saline Bayou—From headwaters to control structure at Saline Bayou	A B C	45	10	5.0	6.0-8.5	1	32	165
* * *									

Commented [JP40]: No change to 100902.

Commented [JP41]: No change to 101001.

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;
D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
101605	Bayou Cocodrie—From Lake Concordia to LAa.–Highway 15	A B C	250	75	5.0	6.0-8.5	1	32	500
* * *									
101607	Bayou Cocodrie—From LAa.–Highway 15 to Little Cross Bayou	B L	250	75	[13]	6.0-8.5	2	32	500
Sabine River Basin (11)									
* * *									
110401	Bayou Toro—From headwaters to LAa.Highway–473	A B C	25	25	5.0	6.0-8.5	1	32	150

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
110402	Bayou Toro—From LAa. Highway 473 to Sabine River	A B C	25	25	5.0	6.0-8.5	1	32	150
* * *									
Terrebonne Basin (12)									
* * *									
120103	Bayou Choctaw—From Bayou Poydras to ICWWBayou Grosse Tete	A B C	250	75	2.3 Mar.-Nov.; 5.0 Dec.-Feb.	6.0-8.5	1	32	500

Table 3. Numerical Criteria and Designated Uses									
A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use; D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters									
Code	**Stream Description**	**Designated Uses**	**Numerical Criteria**						
			CL	**SO_4**	**DO**	**pH**	**BAC**	**°C**	**TDS**
120104	Bayou Grosse Tete—From headwaters to ICWW near Wilbert Canal	A B C	25	25	2.3 Mar.-Nov.; 5.0 Dec.-Feb.	6.0-8.5	1	32	200
* * *									
120503	Bayou Petit Caillou—From Bayou Terrebonne to LAa. Highway-24 bridge	A B C E	500	150	3.8 April-Aug.; 5.0 Sept.-Mar.	6.0-9.0	4	32	1,000

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;

D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
120504	Bayou Petit Caillou—From LAa. Highway 24 bridge to Boudreaux Canal (Estuarine)	A B C E	N/A	N/A	3.8 April-Aug.; 5.0 Sept.-Mar.	6.0-9.0	4 [25]	32	N/A
* * *									
120507	Bayou Chauvin—From ICWWAshland Canal to Lake Boudreaux (Estuarine)	A B C	N/A	N/A	3.8 June-Aug.; 4.0 Sept.-May	6.5-9.0	1 [25]	32	N/A
* * *									

Table 3. Numerical Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;
D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
120604	Bayou Blue—From Company Canal~~ICWW~~ to Grand Bayou Canal	A B C	445	105	3.8 April-Aug.; 5.0 Sept.-Mar.	6.5-9.0	1	32	1,000
* * *									
120705	Houma Navigation Canal—From 1~~/2~~ mile south of Bayou Grand Caillou to Terrebonne Bay (Estuarine)	A B C E	N/A	N/A	3.8 June-Aug.; 4.0 Sept.-May	6.5-9.0	4 [25]	35	N/A
* * *									

Table 3. Numerical ~~al~~ Criteria and Designated Uses

A-Primary Contact Recreation; B-Secondary Contact Recreation; C-Fish And Wildlife Propagation; L-Limited Aquatic Life and Wildlife Use;
D-Drinking Water Supply; E-Oyster Propagation; F-Agriculture; G-Outstanding Natural Resource Waters

Code	Stream Description	Designated Uses	Numerical ~~al~~ Criteria						
			CL	SO_4	DO	pH	BAC	°C	TDS
120709	Bayou Petite Caillou—From Houma Navigation Canal to Terrebonne Bay	A B C E	N/A	N/A	3.8 June-Aug.; 4.0 Sept.-May	6.0-9.0	4 [25]	32	N/A
* * *									

ENDNOTES:

[1]. — [4]. …

[5] Designated Naturally Dystrophic Waters Segment~~— Not Available (N/A); t~~. The following criteria are applicable:

[5].(a). — [25]. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2074(B)(1).
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 15:738 (September 1989), amended LR 17:264 (March 1991), LR 20:431 (April 1994), LR 20:883 (August 1994), LR 21:683 (July 1995), LR 22:1130 (November 1996), LR 24:1926 (October 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:2405 (December 1999), LR 27:289 (March 2001), LR

28:462 (March 2002), LR 28:1762 (August 2002), LR 29:1814, 1817 (September 2003), LR 30:1474 (July 2004), amended by the Office of Environmental Assessment, LR 30:2468 (November 2004), LR 31:918, 921 (April 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:815, 816, 817 (May 2006), LR 33:832 (May 2007), LR 34:1901 (September 2008), LR 35:446 (March 2009), repromulgated LR 35:655 (April 2009), amended LR 36:2276 (October 2010) amended by the Office of the Secretary, Legal Division, LR 41:2603 (December 2015), LR 42:737 (May 2016), amended by the Office of the Secretary, Legal Affairs and Criminal Investigations Division, LR 45:1178 (September 2019), LR 46: